What Is Claimed Is:

1. A transflective liquid crystal display device, comprising:

a display panel having a viewing area, wherein the viewing area comprises a transmissive region and a reflective region;

a backlight device disposed under the display panel, wherein the backlight device provides a backlight passing through the transmissive region;

a power management controller connected with the backlight device, wherein the power management controller controls an intensity of the backlight; and

at least one photodetector located on the display panel outside the viewing area, wherein the photodetector detects an intensity of ambient light around the display panel, and then provides a corresponding signal to the power management controller to control the intensity of the backlight;

wherein, by the power management controller based on the corresponding signal, the intensity of the backlight automatically becomes greater when the intensity of the ambient light becomes lower, and the intensity of the backlight automatically becomes lower when the intensity of the ambient light becomes greater.

2. The transflective LCD device according to claim 1, wherein the display panel comprises:

a first substrate located above the backlight device;

a pixel electrode having a transparent portion and an opaque portion formed on the first substrate, wherein the transparent portion of the pixel electrode is in the transmissive region and the opaque portion of the pixel electrode is in the reflective region;

a second substrate opposite the first substrate; and

a liquid crystal layer interposed between the first and the second substrates.

3. The transflective LCD device according to claim 1, wherein the backlight device comprises a cold cathode fluorescent tube (CCFL) or a light emitting diode (LED).

4. The transflective LCD device according to claim 1, wherein the photodetector is a photosensitive resistor or a photodiode.

5. The transflective LCD device according to claim 2, wherein the first substrate is a glass substrate.

6. The transflective LCD device according to claim 2, wherein the second substrate is a glass substrate.

7. The transflective LCD device according to claim 2, wherein the transparent portion of the pixel electrode is an ITO (indium tin oxide) layer or an IZO (indium zinc oxide) layer.

8. The transflective LCD device according to claim 2, wherein the opaque portion of the pixel electrode is an aluminum layer or a silver layer.

9. A method of fabricating a transflective liquid crystal display device, comprising the steps of:

providing a first substrate having a viewing area and a peripheral area, wherein the viewing area comprises a transmissive region and a reflective region;

disposing a backlight device under the first substrate, wherein the backlight device provides a backlight passing through the transmissive region;

providing a power management controller connected with the backlight device, wherein the power management controller controls an intensity of the backlight; and

forming at least one photodetector on the first substrate in the peripheral area, wherein the photodetector detects an intensity of ambient light above the first substrate, and then provides a corresponding signal to the power management controller to control the intensity of the backlight;

wherein, by the power management controller based on the corresponding signal, the intensity of the backlight automatically becomes greater when the intensity of the ambient light becomes lower, and the intensity of the backlight automatically becomes lower when the intensity of the ambient light becomes greater.

10. The method according to claim 9, further comprising the steps of:

forming a pixel electrode having a transparent portion and an opaque portion on the first substrate, wherein

the transparent portion of the pixel electrode is located in the transmissive region and the opaque portion of the pixel electrode is located in the reflective region;

providing a second substrate opposite the first substrate; and

filling a space between the first substrate and the second substrate with liquid crystal molecules to form a liquid crystal layer.

11. The method according to claim 10, further comprising the steps of:

forming a thin film transistor array on the first substrate, wherein thin film transistors electrically connect the pixel electrode.

12. The method according to claim 10, wherein the transparent portion of the pixel electrode is an ITO (indium tin oxide) layer or an IZO (indium zinc oxide) layer.

13. The method according to claim 10, wherein the opaque portion of the pixel electrode is an aluminum layer or a silver layer.

14. A method of fabricating a transflective liquid crystal display device, comprising the steps of:

providing a first substrate having a viewing area and a peripheral area;

forming a metal layer on part of the first substrate in both the viewing and the peripheral areas, wherein the metal layer in the viewing area serves as a gate;

forming a gate insulating layer on the gate;

forming a semiconductor layer on the gate and the metal layer in the peripheral area;

forming a source electrode and a drain electrode on part of the semiconductor layer on the gate insulating layer;

blanketly forming an insulating layer over the first substrate;

forming a first opening and a second opening penetrating the insulating layer, wherein the first opening exposes the drain electrode and the second opening exposes the semiconductor layer in the peripheral area;

forming a transparent conductive layer in the second opening and the first opening, extending to part of the insulating layer;

forming a reflective layer on part of the insulating layer;

disposing a backlight device under the first substrate, wherein the backlight device provides a backlight passing through the transparent conductive layer extends to part of the insulating layer; and

providing a power management controller connected with the backlight device, wherein the power management controller controls an intensity of the backlight;

wherein a photodetector consists of the metal layer, the semiconductor layer and the transparent conductive layer in the peripheral area, and the photodetector detects an intensity of ambient light above the first substrate, and then provides a corresponding

signal to the power management controller to control the intensity of the backlight;

wherein, by the power management controller based on the corresponding signal, the intensity of the backlight automatically becomes greater when the intensity of the ambient light becomes lower, and the intensity of the backlight automatically becomes lower when the intensity of the ambient light becomes greater.

15. The method according to claim 14, further comprising the steps of:

providing a second substrate opposite the first substrate; and

filling a space between the first substrate and the second substrate with liquid crystal molecules to form a liquid crystal layer.

16. The method according to claim 15, wherein the first substrate and the second substrate are glass substrates.

17. The method according to claim 14, wherein the metal layer is an Al layer.

18. The method according to claim 14, wherein the insulating layer is a SiO_2 layer.

19. The method according to claim 14, wherein the transparent conductive layer is an ITO (indium tin oxide) layer or an IZO (indium zinc oxide) layer.

20. The method according to claim 14, wherein the reflective layer is an aluminum layer or a silver layer.